

LAB 3

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Create a class Book which contains four members: name, author, price, num_pages. Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString() method that could display the complete details of the book. Develop a Java program to create n book objects.

```
import java.util.Scanner;
```

```
class Book {  
    private String name;  
    private String author;  
    private double price;  
    private int numPages;  
    public Book(String name, String author, double price, int numPages) {  
        this.name = name;  
        this.author = author;  
        this.price = price;  
        this.numPages = numPages;  
    }  
    public void setName(String name) {  
        this.name = name;  
    }  
    public void setAuthor(String author) {  
        this.author = author;  
    }  
    public void setPrice(double price) {  
        this.price = price;  
    }  
    public void setNumPages(int numPages) {  
        this.numPages = numPages;  
    }  
}
```

```
}
```

```
public String getName() {  
    return name;  
}
```

```
public String getAuthor() {  
    return author;  
}
```

```
public double getPrice() {  
    return price;  
}
```

```
public int getNumPages() {  
    return numPages;  
}
```

```
// toString method
```

```
@Override
```

```
public String toString() {  
    return "Book Name: " + name + ", Author: " + author + ", Price: " + price + ", Number of Pages: " +  
    numPages;  
}  
}
```

```
public class BookMain {  
    public static void main(String[] args) {  
        System.out.println("Name: Abhinav Sanjay\nUSN : 1BM23CS009");  
        Scanner scanner = new Scanner(System.in);  
        System.out.println("\nEnter the number of books: ");  
        int n = scanner.nextInt();
```

```
scanner.nextLine(); // Consume the newline
```

```
Book[] books = new Book[n];
```

```
for (int i = 0; i < n; i++) {
```

```
    System.out.println("Enter details for book " + (i + 1) + " :");
```

```
    System.out.print("Name: ");
```

```
    String name = scanner.nextLine();
```

```
    System.out.print("Author: ");
```

```
    String author = scanner.nextLine();
```

```
    System.out.print("Price: ");
```

```
    double price = scanner.nextDouble();
```

```
    System.out.print("Number of Pages: ");
```

```
    int numPages = scanner.nextInt();
```

```
    scanner.nextLine(); // Consume the newline
```

```
    books[i] = new Book(name, author, price, numPages);
```

```
}
```

```
System.out.println("\nBook Details:");
```

```
for (Book book : books) {
```

```
    System.out.println(book);
```

```
}
```

```
scanner.close();
```

```
}
```

```
}
```

Output:

```
D:\Abhinav3A\Java>java BookMain
Name: Abhinav Sanjay
USN : 1BM23CS009

Enter the number of books:
3
Enter details for book 1:
Name: ABC
Author: Robert Frost
Price: 500
Number of Pages: 300
Enter details for book 2:
Name: DEF
Author: Chetan Bhagat
Price: 350
Number of Pages: 200
Enter details for book 3:
Name: Ruskin Bond
Author: XYZ
Price: 400
Number of Pages:
500

Book Details:
Book Name: ABC, Author: Robert Frost, Price: 500.0, Number of Pages: 300
Book Name: DEF, Author: Chetan Bhagat, Price: 350.0, Number of Pages: 200
Book Name: Ruskin Bond, Author: XYZ, Price: 400.0, Number of Pages: 500
```